

# PATENT ABSTRACTS OF JAPAN

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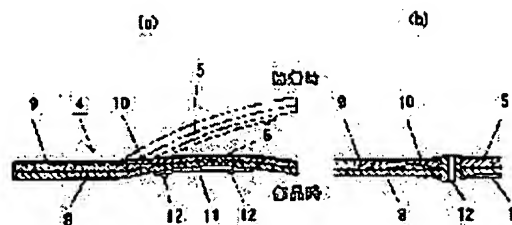
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## (54) LADY FORMAL SHOES WITH HEEL

### (57)Abstract:

PROBLEM TO BE SOLVED: To provide a lady formal shoe of pump, etc., with heel easily wearable as a casual shoe.

SOLUTION: The hard board insole member 5 of a lady formal shoe 1 of pump, etc., with heel is cut off at the front part of the waist part 6. The front end part of the waist part 6 is made gradually thinner toward the front. The rear half part side of a suspending sheet 8 of a flexible nonwoven fabric sheet shaped along the sole is adhered on the hard board-made insole member 5 and a cushioning material 9 of urethane foam, etc., whose rear end is put in between the front end part of the insole member 5 and the suspending sheet 8 is adhered onto the upper face of the front half part of the suspending sheet 8 to form the insole 4. A shank 11 is attached on and tied with a prescribed position rear to waist parts 6 of the insole member 5 and the suspending sheet 8. The upper in a prescribed shape is suspended in via the suspending sheet 8 and the periphery is adhered. An insole is covered on the upper side of the insole 4. The soft rubber main sole with prescribed thickness is attached to the backside, i.e., the underside of the suspending sheet 8.



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CLAIMS

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[Claim(s)]

[Claim 1] They are formal woman shoes, such as pumps to which the heel was attached. The insole material of a hard board in the front section of the arch-of-foot section as the shape of notching the nonwoven fabric sheet which has the flexibility which goes the front end part of the arch-of-foot section ahead, and which was alike, followed, considered as the shape of \*\* gradually, and met the sole configuration -- drawing -- business, while sticking the second half section side of a sheet on the insole material of the above-mentioned hard board and joining Put between sheets, join and an insole is formed. drawing -- business -- the front end section of the insole material of the hard board which described the posterior part above for cushioning materials, such as urethane foam, on the top face for the first portion of a sheet -- drawing -- business -- Attach a shank in a hind position from the arch-of-foot section with a sheet, and it joins together. the insole material of the hard board of the above-mentioned insole -- drawing -- business -- While drawing, drawing the upper of a predetermined configuration into the above-mentioned sheet for a fishing lump through the last of business, pasting up a periphery with adhesives and putting an insole on the top face of the above-mentioned insole Formal woman shoes with a heel characterized by having pasted up \*\*\*\* of soft rubber on the rear-face side which is an inferior surface of tongue of an insole, and equipping a hind heel with the heel of predetermined height.

[Claim 2] Formal woman shoes with [ according to claim 1 ] a heel which made the front end of the front end part of the insole material of a hard board gradually made into the shape of \*\* the shape of an acute cross section.

[Claim 3] the back end section of the cushioning material of sponge -- insole material -- drawing -- business -- the formal woman shoes with [ according to claim 1 or 2 ] a heel which inserted between sheets and

carried out \*\* arrival by the point of a shank.

[Claim 4] Formal woman shoes with [ according to claim 1 to 3 ] a heel which arranged the trailing-edge section of this lobe, and the first transition section of insole material at intervals of [ parallel ] 1-5mm with \*\* which makes the inside side for the treading part by the side of the front of \*\*\*\* of soft rubber a little thick, and attaches cushioning properties further.

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DETAILED DESCRIPTION

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[Detailed Description of the Invention]

[0001]

[The technical field to which invention belongs] This invention relates to the formal woman shoes with a heel in the footwear field.

[0002]

[Description of the Prior Art] After becoming a walking and a jogging boom in recent years, a woman's wear of walking shoes, jogging shoes, and a sneaker has increased.

[0003] The heel is low, cushioning properties are good and they are [ most of these casual shoes is about / which is not /, or they are made into rubber material with \*\*\*\* sufficient / cushioning properties /, its shoes itself are soft, they wear it, and ] refreshing.

[0004] However, in the case of commutation, business, etc., generally, casual shoes, such as the above-mentioned walking shoes, are wearing widely formal shoes, such as pumps, opening shoes, strap shoes, and a boot, especially for a woman, without wearing.

[0005]

[Problem(s) to be Solved by the Invention] However, there are many people who wear these formal shoes, and are [ walking shoes / sandals

with the low heel, SURIPPON with the low heel, / above-mentioned ] easy to wear by commutation unless it is required in a firm and an office and who are wearing pile casual shoes with the fatigue.

[0006] With formal shoes with heels, such as the conventional pumps and high-heeled shoe Since the insole inside \*\*\*\* forms in one from a back heel to the front tiptoe section on hard boards, such as a compression board, The bending nature of a treading part did not have to be good, and the cushioning properties of a treading part did not have to have it, either, it had to wear, it could not say that it was refreshing, and usage which used together with casual shoes which were described above is carried out, and at least 2 pairs of shoes had to be prepared and worn. [ good ]

[0007]

[Means for Solving the Problem] In order for this invention to be what took the example by the above points and to solve the above-mentioned technical problem They are formal woman shoes, such as pumps to which the heel was attached. The insole material of a hard board in the front section of the arch-of-foot section as the shape of notching the nonwoven fabric sheet which has the flexibility which goes the front end part of the arch-of-foot section ahead, and which was alike, followed, considered as the shape of \*\* gradually, and met the sole configuration -- drawing -- business, while sticking the second half section side of a sheet on the insole material of the above-mentioned hard board and joining Put between sheets, join and an insole is formed. drawing -- business -- the front end section of the insole material of the hard board which described the posterior part above for cushioning materials, such as urethane foam, on the top face for the first portion of a sheet -- drawing -- business -- Attach a shank in a hind position from the arch-of-foot section with a sheet, and it joins together. the insole material of the hard board of the above-mentioned insole -- drawing -- business -- While drawing, drawing the upper of a predetermined configuration into the above-mentioned sheet for a fishing lump through the last of business, pasting up a periphery with adhesives and putting an insole on the top face of the above-mentioned insole \*\*\*\* of soft rubber is pasted up on the rear-face side which is an inferior surface of tongue of an insole, and it is in offering the formal woman shoes with a heel characterized by equipping a hind heel with the heel of predetermined height.

[0008]

[Embodiment of the Invention] Formal woman shoes, such as pumps to which the heel of this invention was attached They are formal woman shoes,

such as pumps to which the heel was attached. The insole material of a hard board in the front section of the arch-of-foot section as the shape of notching the nonwoven fabric sheet which has the flexibility which goes the front end part of the arch-of-foot section ahead, and which was alike, followed, considered as the shape of \*\* gradually, and met the sole configuration -- drawing -- business, while sticking the second half section side of a sheet on the insole material of the above-mentioned hard board and joining Put between sheets, join and an insole is formed. drawing -- business -- the front end section of the insole material of the hard board which described the posterior part above for cushioning materials, such as urethane foam, on the top face for the first portion of a sheet -- drawing -- business -- Attach a shank in a hind position from the arch-of-foot section with a sheet, and it joins together. the insole material of the hard board of the above-mentioned insole -- drawing -- business -- While drawing, drawing the upper of a predetermined configuration into the above-mentioned sheet for a fishing lump through the last of business, pasting up a periphery with adhesives and putting an insole on the top face of the above-mentioned insole \*\*\*\* of soft rubber is pasted up on the rear-face side which is an inferior surface of tongue of an insole, and it is characterized by equipping a hind heel with the heel of predetermined height.

[0009] The woman shoes 1 are formal shoes, such as pumps with which the heel 3 of predetermined height stuck to the heel 2 like drawing 1 , opening shoes, strap shoes, and a boot, and also commutation and in a firm besides business, and an office, it is [ the shoes ] fatigue-hard, they are worn, and it enables it to wear it comfortably.

[0010] Therefore, an insole 4 all does not come out of the insole material 5 of the conventional hard board as a part of the insole 4 like drawing 1 R> 1 - drawing 3 , and the woman shoes 1, such as pumps, make it a notching condition in the so-called swivel-joint section 7 of the front section of the arch-of-foot section 6, and are made into the thing of the die length from the heel 2 supporting a guide peg to the arch-of-foot section 6.

[0011] And he is trying for a level difference not to sense gradually the front end part of the insole material 5 of this hard board as the shape of \*\* as shown in drawing 2 (a) and (b) and it goes ahead. When this front end is especially made into the shape of an acute cross section like drawing 2 (b), a level difference is lost and it is desirable. Moreover, the front end section of the hard insole material 5 bends flexibly and is desirable by considering as the shape of \*\* gradually in this way.

[0012] 1-2mm thickness of nonwoven fabric sheets, such as lightweight felt which has the flexibility which can hold the predetermined configuration which met the sole configuration like drawing 1 - drawing 3 at the rear face which is an inferior surface of tongue of this insole material 5, and has cushioning properties in it a little, -- drawing -- business -- while sticking the second-half part of a sheet 8 -- this nonwoven fabric sheet -- drawing -- business -- he sticks the cushioning materials 9, such as urethane foam and sponge, on the background which is the top face for the first portion of a sheet 8, and he is trying to have cushioning properties

[0013] A cushioning material 9 has good urethane foam and sponge with which cushion feeling is acquired like walking shoes or jogging shoes, and its about 2-5mm is desirable as the thickness. If thicker [ when usually thinner than 2mm there is little cushion effect, and ] than 5mm, it will be hard to wear a cushioning material 9 as formal shoes. In addition, if cheap, cushioning materials of super-high elasticity, such as a SORUBO lane (trade name), can also be used.

[0014] and \*\*\*\*\* 10 of the front end section of the insole material 5 which described above the back end section whose cushioning material 9 is the posterior part like drawing 1 - drawing 3 -- drawing -- business -- he puts between sheets 8 and is trying not to produce the sense of incongruity by the level difference of the front end section of the insole material 5

[0015] thus, the rear face of the insole material 5 of a hard board -- a nonwoven fabric sheet -- drawing -- business -- a sheet 8 -- sticking -- this -- drawing -- business -- a cushioning material 9 is stuck on the first portion of a sheet 8, the insole 4 is formed, and the shank 11 is attached in the center section of the second half part of this insole 4 in the pigeon stops 12 grade in accordance with the last like before.

[0016] Thus, like drawing 4 , automatically, a tacking meal and the necessary upper 14 are mechanically drawn into the predetermined last 13, and the formed insole 4 is drawn into it, and adhesives, such as hot melt, are automatically applied to \*\* 15, and it is attached in it. Therefore, time and effort can be omitted, a cost cut can be aimed at, and shortening of production time can also be achieved.

[0017] And \*\*\*\* 16 of composition like drawing 5 or the predetermined thickness of natural soft rubber is joined to the base with adhesives like drawing 1 , and the heel 2 is equipped with the heel 3 of predetermined height and a configuration. The pars basilaris ossis occipitalis of a heel 3 can be equipped with the lift 17 of rubber or resin.

[0018] Above-mentioned \*\*\*\* 16 makes a part for a treading part 18 the shape of about 5-6mm \*\* which is about 1-2mm about the section 19 in the \*\*\*\* second half unrelated to trampling of the back section while making it a little thick and having improved cushioning properties, as shown in drawing 5 (a) and (b). And the lobe 19 of the predetermined area which met a part for the treading part of the top face which is the inside for the above-mentioned treading part 18 which projected only height of 0.5mm - 1mm inside a little is formed, and much more cushioning properties are raised, and in spite of being formal shoes with a heel, it enables it to wear in casual.

[0019] It is located around about two -5mm, considers as the letter of parallel, and can avoid sensing the level difference of the insole material 5 for the sole at all at the time of wear by using the trailing edge 20 of the lobe 19 of \*\*\*\* 16 as the front end edge 21 of the insole material 5 of the hard board of an insole 4 like drawing 5 (b) especially.

[0020] Moreover, by lessening a curing agent, or making [ many ] a rubber ingredient to a surrounding rubber ingredient, and making the lobe 20 of above-mentioned \*\*\*\* 16 a little soft, much more cushioning properties can be obtained, and it can wear softly, and can do preferably.

[0021] And the insole 26 which stuck the cushions 22, 23, 24, and 25 of sponge, such as urethane foam of necessary thickness, on the rear face, respectively is stuck and covered like drawing 1 on the top face of the insole 4 which attached the upper 14 again to the side of a part for a heel, and an arch-of-foot part, the anterior part of an arch-of-foot part, a treading part, etc., cushioning properties are made much more good, and wear nature can be made to improve.

[0022]

[Example] Below drawing 1 is one example of the woman shoes 1 which carried out this invention on pumps. the felt which the front end section of the insole material 5 of the hard board of 2mm thickness is gradually made thin as shown in drawing 2 (a) and (b), that back end section is laid on top of this point section for the cushioning material 9 of 2.3mm thickness of urethane foam, and is the nonwoven fabric sheet of 1mm thickness -- drawing -- business -- it combined with the sheet 7 through the shank 11 of a predetermined configuration lamination and the second half at the section, and the insole 4 was formed.

[0023] Consequently, like drawing 4 , the tacking meal and the conventional hard board were able to draw the upper 14 of predetermined leather into the last 13 for pumps, as shown in drawing, and they were



able to draw this insole 4 into it like the whole insole, and adhesives were able to be applied and attached in \*\* 15 with the hot melt adhesive vessel.

[0024] And as described above to the insole 4 equipped with an upper 14, it equips with \*\*\*\* 16, a heel 3, and an insole 26.

[0025] As a result of wearing the pumps shoes made as an experiment, while especially the cushioning properties of a treading part were good while being able to wear like the usual pumps shoes and the sole could land on software like walking shoes, it was that along which a level difference is not sensed, either, a swivel-joint part is met, a treading part bends freely, and it is easy to walk.

[0026] Therefore, of course, what these formal pumps shoes are worn and can be used for commutation, business, etc. was this convenient thing that can be worn like casual shoes by 1 pair of shoes, without changing into casual shoes also [ in a firm and an office etc. ].

[0027] Although the pumps shoes to which the heel was attached were explained above, it is the thing which is similarly applied about formal shoes, such as opening shoes, strap shoes, and a boot, and which can carry out things.

[0028] In addition, the nonwoven fabric sheet of the felt is light, and although there are also cushioning properties, and cost is also cheap and desirable, it replaces with the nonwoven fabric sheet of the felt based on the meaning of this invention, and it is soft and able [ a perimeter ] to apply at least rubber with the soft cushioning properties which have firmness, and a synthetic sheet.

[0029]

[Effect of the Invention] Since the insole material of a hard board was gradually made into the shape of \*\* as it went the front end part of the arch-of-foot section ahead by the front section of the arch-of-foot section as the shape of notching in spite of having been formal woman shoes with a heel if it was in this invention as mentioned above, the so-called ball join section a little ahead of the arch of foot is met, and the treading part of shoes can be bent flexibly.

[0030] Moreover, by equipping a part for the first portion of an insole with a cushioning material, the sole contacts software in a treading part, cushioning properties are good, and a feeling of wear is good.

[0031] and the rear face which joined the insole material and cushioning material of such a hard board -- a nonwoven fabric sheet -- drawing -- business -- sticking a sheet -- this -- drawing -- business -- an activity is enabled for the upper which could maintain firmness with the sheet and minded the last to draw, and to carry out automatically, it

draws, adhesives are applied to \*\*, and wearing of an upper can be performed simply for a short time.

[0032] furthermore -- drawing -- business -- by attaching \*\*\*\* of the predetermined thickness of soft rubber in the rear-face side which is an inferior surface of tongue of a sheet, and attaching the heel of predetermined height in the heel of the posterior part Formal shoes with a heel can be worn like casual shoes, and can be worn comfortably. Of course, without changing into casual shoes also [ in a firm and an office etc. ], on this one foot, it is fatigue-hard like casual shoes, and it can be worn that it can use for commutation, business, etc.

[0033] Moreover, by making into the shape of an acute cross section the front end of the front end part of the insole material of a hard board gradually made into the shape of \*\*, the level difference of the front end part of the insole material of a hard board can be lost, and it is desirable.

[0034] further -- again -- the back end section of the cushioning material of sponge -- insole material -- drawing -- business -- by inserting between sheets and carrying out \*\* arrival by the point of a shank, it is stabilized, and can equip with a cushioning material and a manufacture and use top can also be maintained with sufficient quality.

[0035] With \*\* which makes the inside side for the treading part by the side of the front of \*\*\*\* of soft rubber a little thick, and attaches cushioning properties further further again, by arranging the trailing-edge section of this lobe, and the first transition section of insole material at intervals of [ parallel ] 1-5mm, much more cushioning properties of a treading part can be raised, and it can avoid sensing the level difference of insole material at all, can wear, and can wear comfortably.

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## DESCRIPTION OF DRAWINGS

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[Brief Description of the Drawings]

[Drawing 1] The sectional side elevation of the pumps shoes which one example of this invention omitted the part,

[Drawing 2] The top view (a) and important section expanded sectional view (b) of the insole section same as the above,

[Drawing 3] The top view (a) and bottom view (b) of an insole same as the above,

[Drawing 4] The sectional view for upper fishing lump explanation same as the above,

[Drawing 5] The top view (a) and sectional side elevation (b) of \*\*\*\* same as the above,

[Drawing 6] The top view of an insole same as the above.

[Description of Notations]

1 -- Woman shoes 2 -- Heel 3 -- Heel

4 -- Insole 5 -- Insole material 6 -- Arch-of-foot section

7 -- swivel-joint section 8 -- drawing -- business -- sheet

9 -- Cushioning material 10 -- \*\*\*\*\* 11 -- Shank

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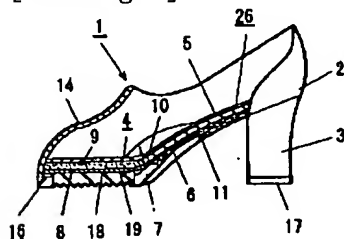
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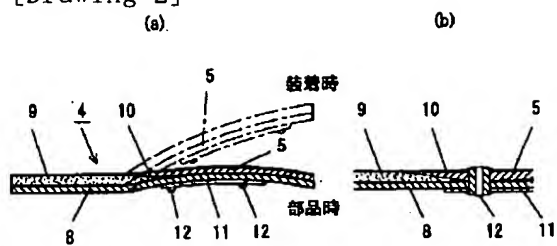
## DRAWINGS

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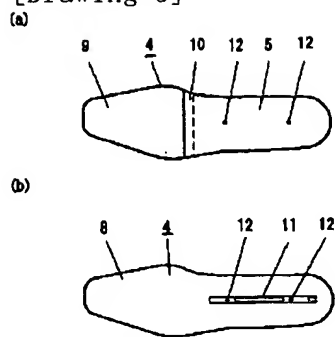
[Drawing 1]



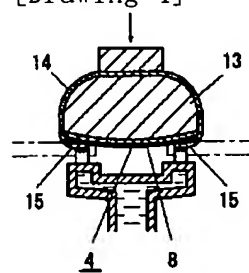
[Drawing 2]



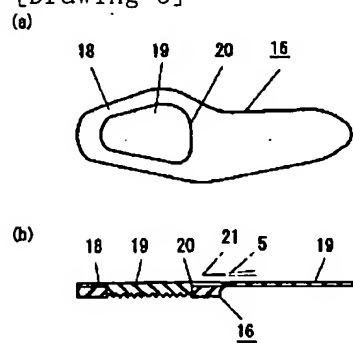
[Drawing 3]



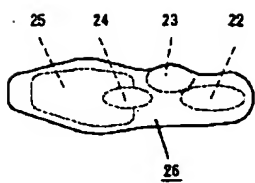
[Drawing 4]



[Drawing 5]



[Drawing 6]



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